

Work Order ID 113643 - 1

113643

Page 1

February-24-14 10:00:30 AM

Item ID: D3676-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Bubble Window, LH

Start Date: 2/24/14 Start Qty: 2.00

Cust Item ID:

Required Date: 2/24/14 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan: MJS

Date: 14-02-25

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3676

Rev C

100

0.00

100

HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Set up Machine as per folio FTA 018 and D3676 program

DAS
07
9-89

15/02/04

110

0.00

110

HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

Cut Blanks to 38" by 52"

DAS
07
9-89

15/02/04

DQA:

Date: 15/03/25

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date: 15/03/23

Work Order update only ☐

Work Order: 113643	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. D3676-1		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. 15-4694		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☐	Composite ☒	Supplier ☐	

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design		15/2/11	120	1	Bubble window is up to 0.004 under tolerance in thickness in a 5"x5" area at max bubble depth. RC Forming issue / process	DAS 12 9-89 15/2/11	Acceptable per D.S. email. David Sheperd.	DAS 12 9-89 15/2/11	5 15/03/19	5 15/03/19
Doc/Data										
Equip/Tooling										
Handling/Pre										
Material										
Operator										
Offset/Setup										
Process	X									
Supplier										
Training										
Transport										
Unapproved										

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☒ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 113643

113643

Page 2

February-24-14 10:00:30 AM

Item ID: D3676-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bubble Window, LH

Start Date: 2/24/14 Start Qty: 2.00 *2*

Cust Item ID:

Required Date: 2/24/14 Req'd Qty: 2.00 *2*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

0.00

120

THERMOFORMING MACHINE

Thermoform

Memo

0.00

Thermoforming Machine

Thermoform as per Dwg. D3676 and Folio FTA 018

Dwg. Rev. D

Folio Rev. D

1- Visually inspect for proper formation of each part
2- Check depth of bubble

x2 x2 15/02/04.
PTO. →

150

0.00

150

HAND FINISHING THERMOFORMING

Thermoform

Memo

0.00

Thermoforming Machine

1) Trim off excess flange material
2) Buff out any light scratches or blemishes
3) Etch part number and batch number

1 15/02/05

DQA:

Date:

15/05/05



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

15/05/04

Work Order update only ☐

Work Order: <u>113443</u>	DISPOSITION		AGAINST DEPARTMENT/PROCESS			
Part No. <u>D3676-1</u>	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	
NCR No. <u>15-4869</u>	Scrap ☒	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	
	Use-as-is ☐	Thermoforming ☒	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	
	Suspected Unapproved ☐	Large Fab ☐	Composite ☐	Supplier ☐		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	15/02/04	120	2.	① part pulled from clamps.		Re-program sensor and re-align.	Why 15/02/04	BB 15/02/05	DAS 9 9-89
Doc/Data				① part; sensor failed to read part and part failed.	5	Scrap 2. parts.			1503-17
Equip/Tooling	X			RL FAILED SENSOR.	22000 15/02/05	Reshm. M 129447			
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear		General					
☐ Bending	☐ Bend	☐ Folio/Program	☐ Outside Dimensions	☐ Pressure/Forced			
☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance	☐ Set-up			
☐ Cracks	☐ Broken/Damage/Defect	☐ Hardware	☐ Part Incorrect	☐ Temperature/Cure			
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Inspection Incomplete/Unqualified	☐ Part Lost/Missing	☐ Weld			
☐ Cuffs	☐ Contamination	☐ Instructions Incomplete/Unclear	☐ Part Moved	☐ Wrong Stock Pulled			
☐ Crushing	☐ Countersink	☐ Misaligned/off center	☐ Positioned Wrong	☐ Other			
☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Power Loss/Surge				
☐ Inspection Strip in Tube	☐ Drawing	☐ Misread					
☐ Marks/Chatter	☐ Drill Holes	☐ Off-set					
☐ Turning Sequence	☐ Finish	☐ Out of Calibration					
☐ Wave/Twist in Tube	☒ Fit/Function	☐ Out of Sequence					

Work Order ID 113643

February-24-14 10:00:30 AM

113643

Page 3

Item ID: D3676-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bubble Window, LH
 Start Date: 2/24/14 Start Qty: 2.00 *2* Cust Item ID:
 Required Date: 2/24/14 Req'd Qty: 2.00 *2* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160	QC2- Inspect parts off machine FAI/FAIB	0.00				1			B 15/02/05
160									
QC	Memo	0.00							
Quality Control									

170	QC5- Inspect part completeness to step on W/O	0.00				DAS 27 9-89			
170						15/2/05			
QC	Memo	0.00							
Quality Control	1) Visually inspect for clarity, and proper formation.								

180	Identify as per dwg & Stock Location: <u>FG 107</u>	0.00							B 15/02/17
180									
Packaging	Memo	0.00							
Packaging	<i>sold</i>								

1x M-10

DAS
28
9-89

MAR 13 2015

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other

Work Order ID 113643

February-24-14 10:00:30 AM

113643

Page 4

Item ID: D3676-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bubble Window, LH

Start Date: 2/24/14 Start Qty: 2.00 *2*

Cust Item ID:

Required Date: 2/24/14 Req'd Qty: 2.00 *2*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							
Quality Control									

MLJ 15 03-13

MF
15-3-13

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

February-24-14 10:00:30 AM

Page 1

Work Order ID: 113643

113643

Parent Item: D3676-1

D3676-1

Parent Item Name: Bubble Window, LH

Start Date: 2/24/14

Required Date: 2/24/14

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev A New Product 01/24/2008 DL Verified:JLM
IPP Rev B Change Mat. to .236" 08/29/2008 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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MACRLICS.236

Purchased

No

110

sf

295.0000

14

49

DAS
07
9-89

MACRI ICS 236

Plexiglass G .236"

Location

Loc Qty

Loc Code

therm

295

M127669

160

M127867

135

139447

98 sg ft.

15/02/05

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

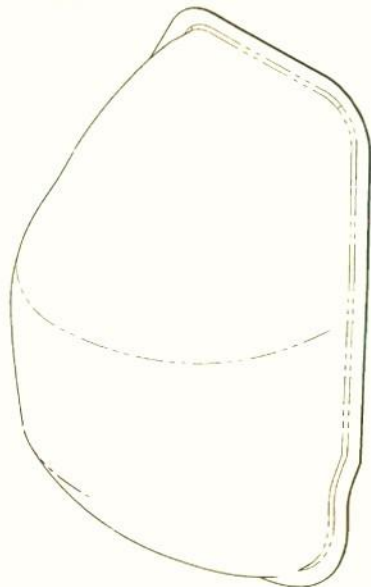
FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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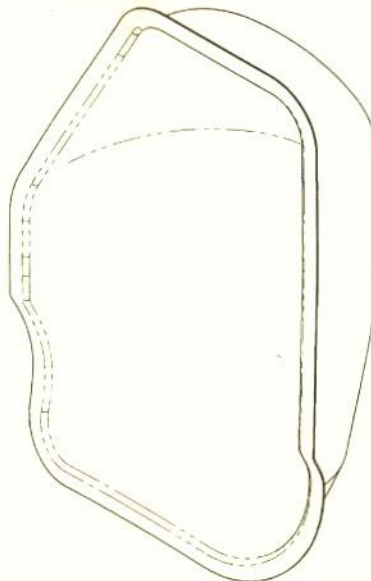
Two
S
Ten

Page 10

...



D3676-1 FULL HEIGHT BUBBLE WINDOW (LH)



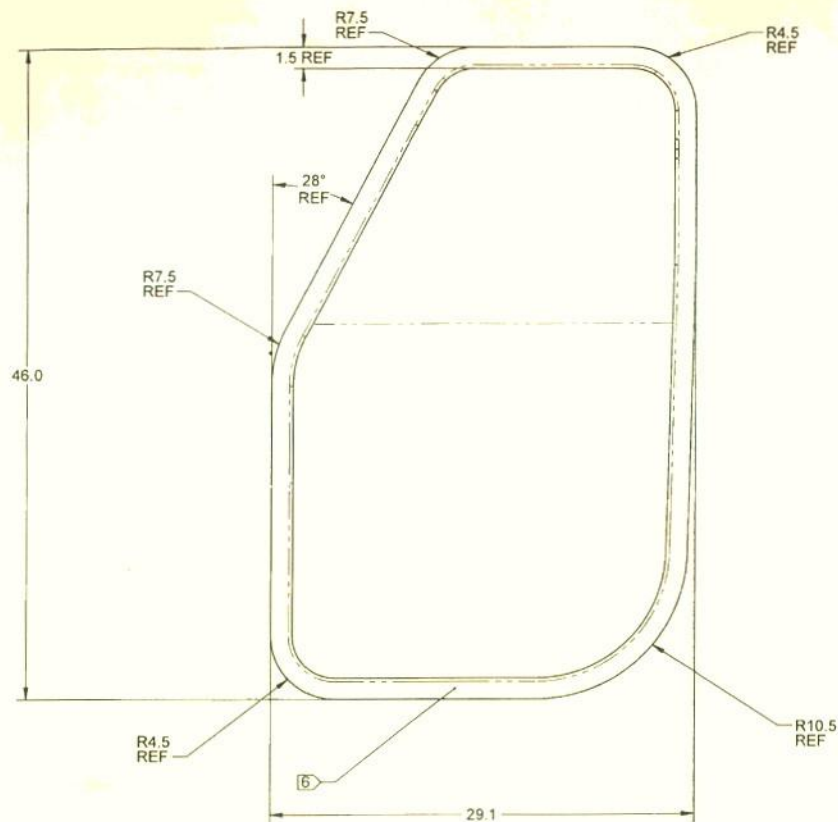
D3676-2 FULL HEIGHT BUBBLE WINDOW (RH)

SHO
RTH
D
UNCON

113643 MCL
1402-25

113643
1402-25

D	UPDATE TOLERANCE ON DEPTH, ADD 20.0 MAX. VERTICAL DIMENSION (SH 2 & 3), NEW VIEW LAYOUTS ON SH 1 & 2	DB	13.12.05
C	ADDED D3676-2 FULL HEIGHT BUBBLE WINDOW (RH). REMOVED NOTES ON SHEET 1, REFORMAT NOTES 6 & 8 ON SHEET 2, D3676-1 WAS "412 BUBBLE WINDOW" NOW "FULL HEIGHT BUBBLE WINDOW (LH)".	AP	12.03.01
B	REVISED TOLERANCE ON MINIMUM THICKNESSES (ZN A&B8-2). REASON: PRODUCTION FACILITY.	MB	08.10.27
A	NEW ISSUE	MB	08.02.29
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	A.P.	DRAWING NO.	REV. D
MFG. APPR.	AP	D3676	SHEET 1 OF 3
APPROVED	AP	TITLE	SCALE
DE APPR.	SH	FULL HEIGHT BUBBLE WINDOW	NTS
DATE	13.12.05	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

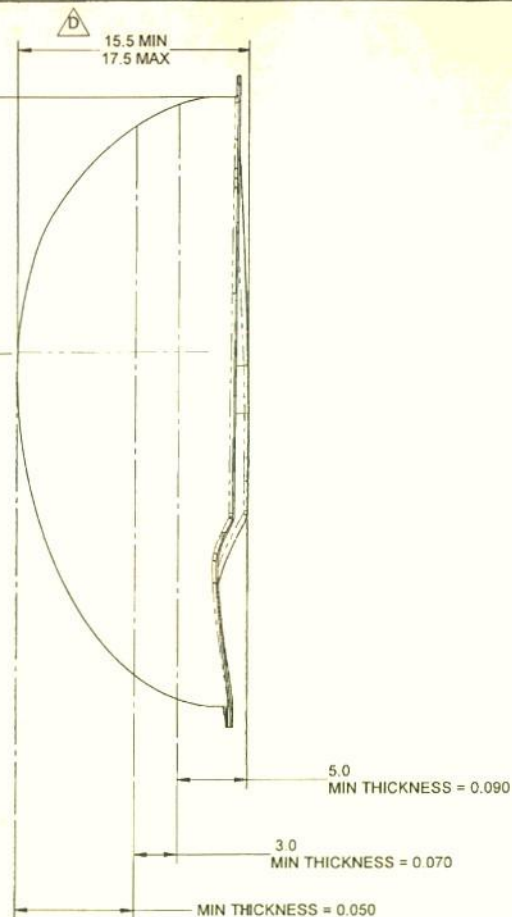


D3676-1 FULL HEIGHT BUBBLE WINDOW (LH)

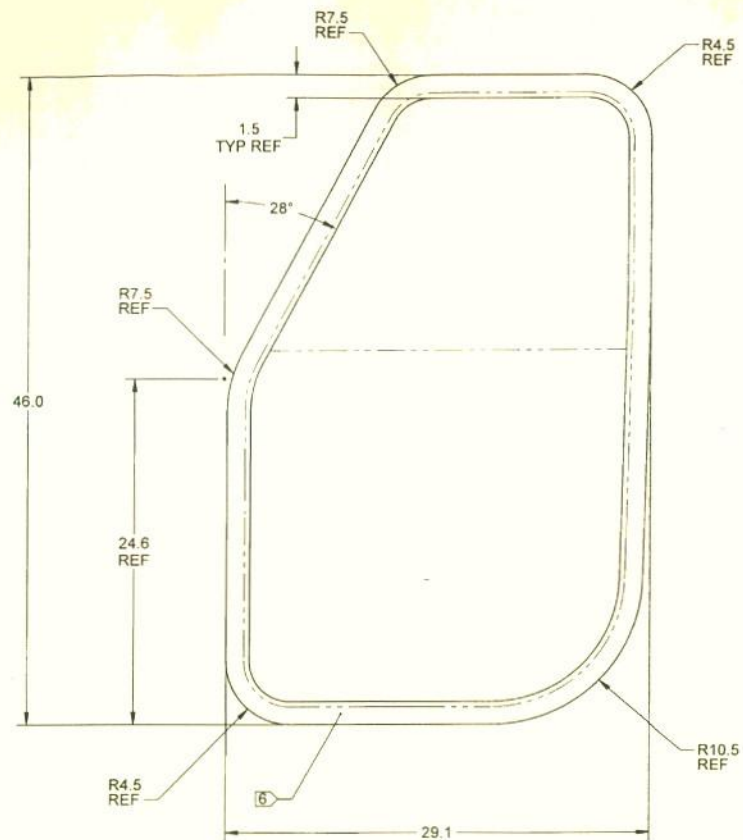
NOTES:

- 1) MATERIAL: PLEXIGLASS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C OR POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425, 0.236 THICK (REF. DART SPEC. M-ACRYLIC-S.236)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: ENGRAVE P/N "D3676-1" & B/N "BXXXXX" ON FLANGE WITHIN 0.25" OF BUBBLE. USE 0.125" LETTERS TO MAX. DEPTH OF 0.005" PER DART QSI 044 6.4 WITH VIBRATING STYLUS.
- 7) WEIGHT: 11.0 lbs
- 8) THERMOFORM PER DART QSI 022 USING DT8992
- 9) MAXIMUM WINDOW DEPTH TO BE AS FAR ABOVE CENTER OF WINDOW AS POSSIBLE

Δ
20.0 MAX



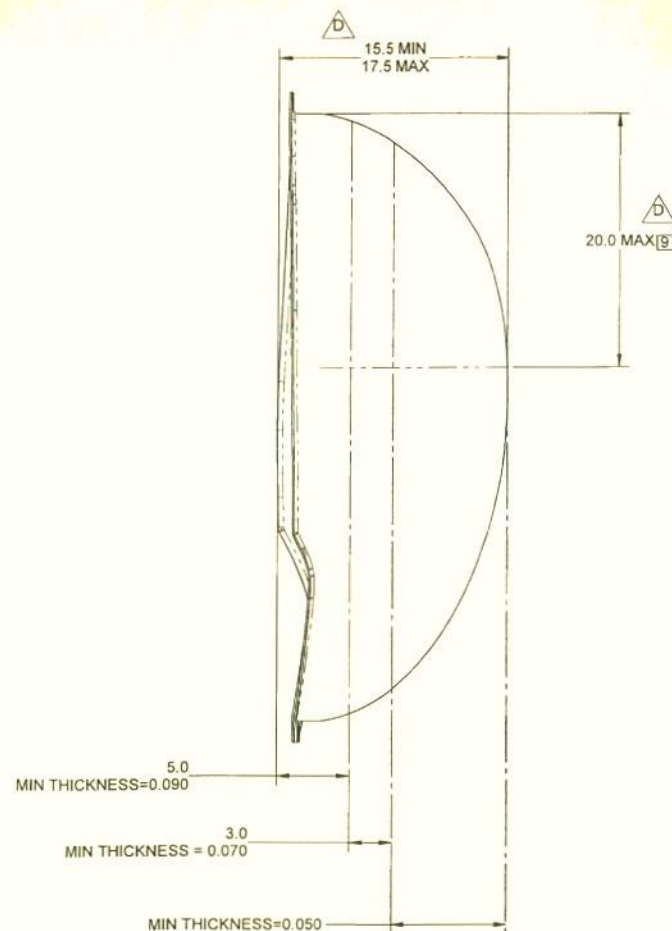
DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	A.P.	DRAWING NO.	REV. D
MFG. APPR.	DB	D3676	SHEET 2 OF 3
APPROVED	DB	TITLE	SCALE
DE APPR.	DB	FULL HEIGHT BUBBLE WINDOW	NTS
DATE	13.12.05	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS NOT TO BE USED FOR ANY PURPOSE OR DISCLOSED OR IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD	



D3676-2 FULL HEIGHT BUBBLE WINDOW (RH)

NOTES:

- 1) MATERIAL: PLEXIGLASS G CLEAR CAST ACRYLIC SHEET PER LP-391 TYPE 1 GRADE C OR POLYCAST II CLEAR ACRYLIC SHEET PER MIL-P-5425, 0.236 THICK (REF. DART SPEC. M-ACRYLIC-S.236)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.010 TO 0.020 MAX
- 6) IDENTIFICATION: ENGRAVE P/N "D3676-2" & B/N "BXXXXX" ON FLANGE WITHIN 0.25" OF BUBBLE. USE 0.125" LETTERS TO MAX. DEPTH OF 0.005" PER DART QSI 044 6.4 WITH VIBRATING STYLUS.
- 7) WEIGHT: 11.0 lbs
- 8) THERMOFORM PER DART QSI 022 USING DT9794
- 9) MAXIMUM WINDOW DEPTH TO BE AS FAR ABOVE CENTER OF WINDOW AS POSSIBLE



DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	DB		
CHECKED	A.P.	DRAWING NO.	REV. D
MFG. APPR.	He	D3676	SHEET 3 OF 3
APPROVED	He	TITLE	SCALE
DE APPR.	He	FULL HEIGHT BUBBLE WINDOW	NTS
DATE	13.12.05	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR TRANSMITTED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Chris Provencal

From: David Shepherd
Sent: Wednesday, February 11, 2015 1:43 PM
To: Chris Provencal
Cc: Laith Qatami
Subject: RE: NCR D3676-1 Bubble Window

Chris,

I think this is an acceptable deviation.

Regards,
David

From: Chris Provencal
Sent: February-09-15 9:41 AM
To: David Shepherd
Cc: Laith Qatami
Subject: NCR D3676-1 Bubble Window

David,

Qty(1) D3676-1 Bubble Window. At the max depth, the wall thickness is under tolerance. Min wall = 0.050". In an approx 5"x5" area its under tolerance and tapers down to 0.046". The remaining wall thickness measurements are over minimum by at least 0.020".

Is this acceptable?

-Chris

